HOUSING FINANCE: THE DESIGN PROBLEM IN HOUSING DELIVERY

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Abstract

To show case the design problems inherent in mass housing, this paper provides an analysis of end-users' assessment of the planning and architectural designs, construction and maintenance of buildings and land uses in Low and Medium Income Housing Estates in Karu, Kubwa and Lugbe which are satellite towns around Abuja Federal Capital of Nigeria. Using a structured questionnaire survey and systematic sampling technique, the residents were required to express their likes and dislikes for different aspects of the design of their housing and the planning of their housing estates.

The analyses of the data collected showed that nearly all the residents claimed that they were not involved in the planning and design of their houses attracting 100% in Kubwa, 95.24% in Karu and 89.6% in Lugbe. More people expressed dislikes for the design of their buildings in all the three towns attracting 56% in Lugbe; 67% in Karu and 62% in Kubwa. Those who said they will prefer another design ranged from 76% for both Lugbe and Karu to a whooping figure of 89% in Kubwa. Almost 7 out of every 10 people in Lugbe (69.5%) and 1 out of 2 in Kubwa (50%) said the design of their houses is just fair, while only 1 out of 2 in Karu (47.5%) said that the designs of their houses are good. On overall planning and design of the housing estates, 3 out of 5 in Lugbe (61.0%) said that the planning and design of their estate is fair; whereas 53.7% in Karu and 47.50% in Kubwa rated their estates as of good design. The facilities that attracted low ratings and low considerations in housing estate design include gardens and recreation grounds, car parks, water supply (both piped water and boreholes), tarred roads and security. With regards to the design of individual houses residents were not satisfied with the designs of plot sizes, car parks, gardens, burglar proof, fencing, room arrangements, size of toilets, maintenance, landscaping of surrounding spaces, water supply and electricity.

Reacting to their alienation, a high percentage of the residents of these estates amounting to 88% in Lugbe, 81% in Kubwa and 93 in Karu expressed an overwhelming willingness to participate in the design of their houses. The paper in conclusion made appropriate suggestion for involving end users in mass housing programme by organizing city consultations for end users/stakeholders as part of the programme design and public review stages of the conventional design process for housing design and estate planning.

1. INTRODUCTION

A house is more than just a mere dwelling unit (Abrams, 1961; Wahab, 1982; Tipple, 1991); fulfilling many other roles including: a source of identity and status, a place of assembly for wider family or lineage from day to day (family house); the location for business to augment income, a storage for property; and the fabric of neighbourhood life and the whole society, touching upon 'facets of economic activity and development' (Abrams, 1961; Tipple, 1991). More importantly, housing influences man's satisfaction, aesthetic appeal and social values. Housing encompasses all the ancillary services and communal facilities which are necessary for human well being. In fact, a house is a package of services, and access to employment and social amenities as well as the structure of shelter itself.

The term 'housing' covers all the socially accepted ways by which a man acquires a territory for his home, the price he pays for it and the manner in which the stock of houses is maintained and enlarged (Nevitt, 1971). As such, home owners buy not only the bricks or the cement blocks or the mud and mortar but also location, security of tenure, proximity to work, recreation, shopping centres, schools and all advantages that may be derived from such locations.

It has been argued that houses 'work and talk' by fulfilling certain roles and functions and by its aesthetic and visual appeals and by its communication with and standing in the surrounding landscapes (Marvin Bartel, 1999). To make house 'work and talk' Bartel (1999) opined that identifying and clarifying the issues around the decision making criteria for housing design are critical and that both planners and architects need to work closely with clients and end users in order to achieve a good design.

Ideally, conventional land use planning and architectural practice is based on and indeed starts from an effective consultations and involvement of clients and end-users to arrive at functional, aesthetically pleasing and affordable houses. The design of a house is a function of cost, and mostly often when the clients are involved in the design of the house, a more realistic housing cost and satisfying and relevant housing designs can be achieved. Thus the involvement of the home owners is a sure way of coming up with a realistic and feasible building design through trade-offs.

Land use planning and building design processes in Nigeria, are more or less 'top-down' imposition on the end users without their involvement in the processes. Both government and private sector lead-housing development are based on mass housing programmes designed for faceless users, which tends to alienate the end users/occupiers. The clients for most mass housing programme in Nigeria at present are either government agencies or private developers, both are not necessarily the end users of the buildings. Basing the design of mass housing simply on the requirements of the client may deserve a second look, especially when the client may not necessarily be the end-users of the building in question and cannot also fully present their requirements for the building design. The problems posed by this kind of approach are understudied at the present.

When end-users are not directly involved in the design of their houses all kind of problems emanate. End users of houses react in several ways by embarking on transformations or changes in the buildings after they have been built. Most researchers see the transformations of or changes made to buildings as clear expressions of their needs not taken into account in the design and a protest of their alienation in the design process. They see these alterations as making tangible contributions to the built environment and showing their sense of belonging; an indication of either increasing or expanding their living space, and showing that they have stake in the house they occupy. By engaging in these various transformations of buildings, the users are expressing their dissatisfaction with the designs of their homes and the transformation carried out is a way of ensuring participation and contributing to improving their environment (Tipple, 1991).

This paper sets out to examine the reaction of end-users to the design of their houses and to show what design problems are inherent in housing designs delivery in Nigeria and what valuable lessons can be learned from it. The paper presents an account of the questionnaire survey of residents of low and medium income housing estates in Karu, Lugbe and Kubwa, which are the products of mass housing programme. The paper provides an overview of the conventional design process which is participatory and client-centred and the client is indeed the end user and the process adopted for developing mass housing in Nigeria to put the case study in proper perspective.

2. OVERVIEW OF DESIGN OF MASS HOUSING IN NIGERIA

Conventionally, designing a house is a complex yet an important task to be achieved. A fruitful and enduring house design entails a number of sequential processes. It begins with the conception of an idea by the client to develop a site for a specific purpose either for economic, social, technological or culture (Green, 1981; Falade, 1998).

This sequential process begins with client's brief through broad information gathering and analysis and ends with specific detailed design drawings. The process involves three basic stages, comprising ***Analysis***, ***Design*** and ***Implementation*** (Fig 1). The chart indicates a planning process; however, specifics of the site - such as physical site characteristics, location, and community criteria-may modify the process. Certain steps in the process may be taken simultaneously, rather than on a precise step-by-step basis (Fig. 1). Throughout the design process, the consideration of the needs of the clients is always the starting point and the points of reference in all the stages of design especially in the generation of alternatives and in the production of the final design. The beauty of this process is that the design becomes robust functional and affordable if the client is also the end users of the resultant design.

Due to acute housing shortage in Nigeria and menace of poverty, home owners are handicapped to regard housing as mere shelter and not think of its other attributes as listed above. Presently home ownership is remarkably low because of the pervasive and perverse poverty situation in the country. Most urban dwellers are renters of housing which is attracting more than 60% of Nigerians living in urban areas.

Another aspect of housing development in Nigeria is the little or no chance given to consumers/owners to be effectively involved and participate in the housing planning and design process. The norm rather than the exception is that most houses are designed and built before either the owners buy them or the occupiers move into them. Housing estates designed are developed like turn-key projects. Such houses are built before the owners either buy or rent to live in them. For most new private estate springing up today, the products are simply 'What You See is What You Get' (**WYSWYG**) and often not 'What You Need is What You Get' (**WYNWYG**).

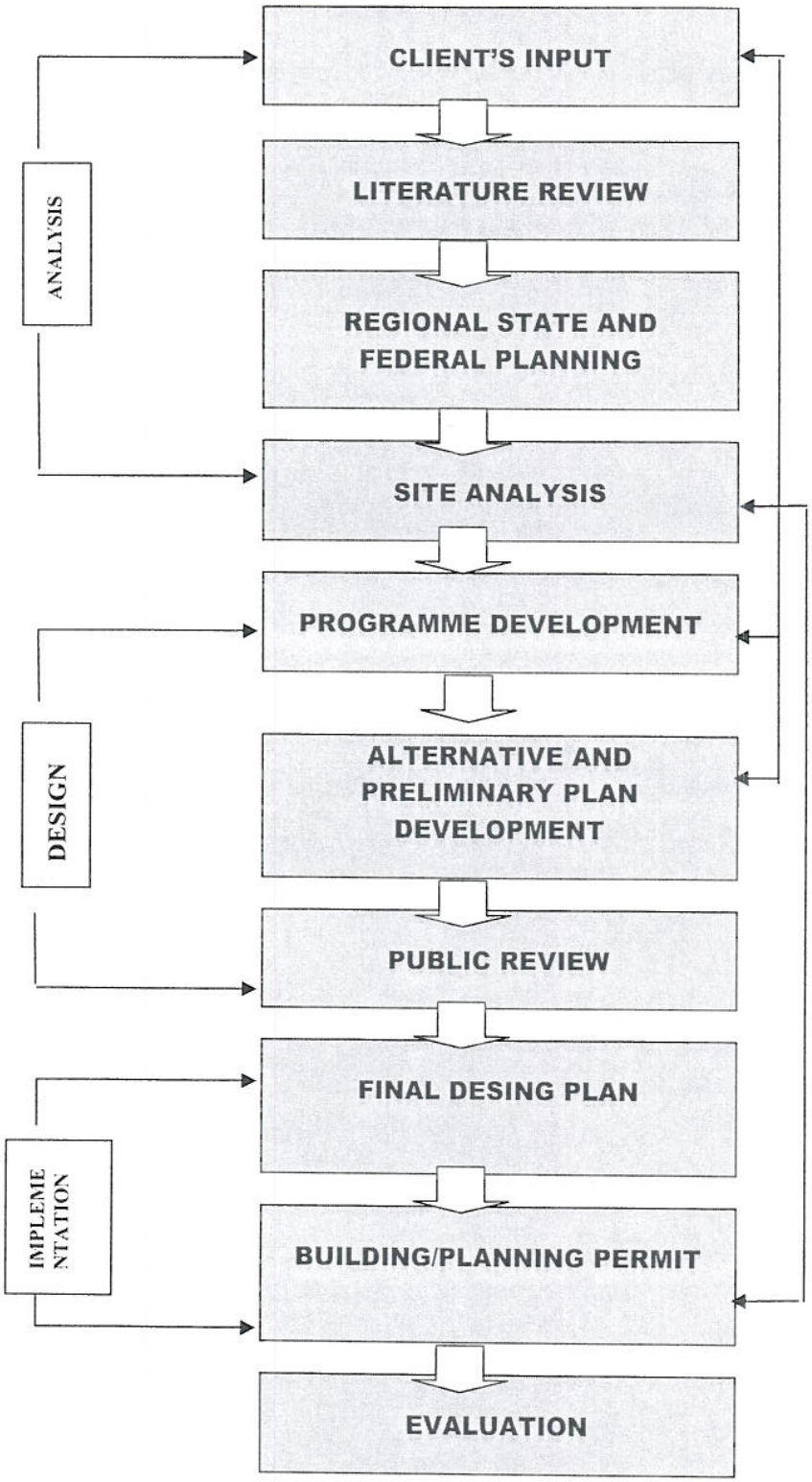

Fig.1: Conventional House Design Process

Following from the above is the need to address several questions How can we transform housing design from non-participatory approach to one that is participatory in Nigeria? What form of housing design will suit the different socio-economic groups? How can we use the design solution to checkmate the problem of overcrowding and restore dignity to human living in housing estates? What method of participation will be adaptable for housing design to ensure that consumers participate in the process? The quest to provide answers to these questions inform this study to assess users' reaction to mass housing design. As depicted in Fig 1 on the design process, there is a place for an evaluation to be conducted after the design has been constructed and inhabited by end-users. The purpose is to review the processes and the products and assess them in the context of the community as it exists. By so doing, such studies provide the land use planner and architects with valuable data for future planning programmes.

3. CASE STUDY OF RESIDENTIAL SATISFACTION WITH HOUSE DESIGN

3.1 Study objectives:

This study was undertaken with three main objectives: first, to understand the process of housing design and as a form of post design evaluation to identify what works and what the consumers/renters/owners of houses do not like about the planning and design of their estates; second, to examine the importance attached to a participatory approach to evolving the design, and what other considerations went into the design of the residential neighbourhoods to make the houses provided to fulfill the larger expectations of the residents; third, to identify design problems and advance some principles of design that can be derived from the response of the users.

3.2 Methodology

A structured questionnaire survey was designed, discussed and evaluated among professionals in the environmental design and management including architects, planners and landscape architects to agree on the contents of the questionnaire. Thereafter, this agreed framework was pilot-tested and amended before administering it on the residents.

The questionnaires were administered on end users of mass housing programmes in three low and medium income residential estates with one each selected from Kubwa, Karu and Lugbe. These are satellite towns around Abuja inhabited by low and middle income earners. These residential estates were designed as mass housing programmes. The clients are government agencies and private developers. Although the end-users were determined they were not involved in the process of the design.

A Cluster Random Sampling Technique was employed in the administration of the questionnaire at Kubwa, Phases 2, 3 and 4 Federal Capital Development Authority (FCDA) Owner occupier and Army Housing Estate are prominent clusters that were selected for the administration of the questionnaire. A total of 70 questionnaires were randomly administered in each of the clusters. 20 of the questionnaires were administered in Phase 2, 10 in Phase 3, and 10 Phase 4. In the FCDA, Owner Occupier, another 20 questionnaires were administered and the remaining 10 questionnaires were administered at the Army Housing Estate. Out of the 70 questionnaires administered in these clusters, a total of 41 questionnaires were returned. This translates to approximately 59 percent of duly completed questionnaires.

At Lugbe, a residential Estate developed by Federal Housing Authority, a total of 60 questionnaires were administered out of which 59 were returned (98.3% return). Considering the fact that Lugbe Residential Estate consists of mixed dwelling units of 2 and 3 bedroom detached bungalows, it was clustered on street basis. The Estate has a total of 28 Streets, with each street having a total of 14 houses. The questionnaires were administered on street by street basis with two questionnaires administered on the shorter Streets and 3 questionnaires on longer Streets with more houses. Using the systematic Random Sampling Technique, the fourth residential house in a street was selected and thereafter every 11^{th} house and resulted in 1 in every 7 housing units being selected for survey.

In Karu the systematic sampling technique was used for administering the questionnaire in four different estates namely Central Bank Low Income Quarters, Bungalow Low Cost Estate, High Rise Low-cost Estate and Customs Estate. 16 questionnaires distributed in each of them, making a total of 64 questionnaires out of which 42 were collected (65.6%).

The questionnaire was designed to provide information on the socio-economic indicators including their age, sex, occupation income, educational attainment, household population, tenure, car ownership, mode of transport, type of house, development process and their involvement in the design, facilities and infrastructure provided in the house. These elements include plot size, number and size of bedrooms, living rooms, accessibility, location of housing to other ancillary facilities e.g. schools, place of work, shops, markets, recreational facilities, and infrastructure provision for roads, electricity, water, drainage etc, provision for car parks, gardens, security and maintenance. Respondents were also requested to rate the overall design of the house, and estate in which their houses were located and to express their satisfaction or otherwise with the different elements of house design, preference for the design or otherwise, security, waste disposal, provision of utilities and overall rating of the building design and the estate in which the house is located. End users were requested to assess various elements of house design. Responses to these questionnaires are meant to shed light on two critical questions: to what extent were the end-users involved in the design of the house? What importance is attached to these principles in housing design a dhow satisfied with them are the residents?

3.3 Data Analysis:

3.1 Social economic characteristics of the surveyed Population:

These include the following:

Age: The respondents were mostly between the ages of 25-50 years. The modal age group is 30-40 years for the three cities attracting 64.41%. 71.43% and 57.50% for Lugbe, Karu and Kubwa respectively.

Sex: The sex distribution of the respondents vary with estates (Lugbe (Male: 42.37%: Female: 57.63%; Karu - Male: 54.76%; Female: 45.24%; and Kubwa (Male: 60.98%; Female: 39.02%).

Education: Analysis of the educational attainment of the respondents shows that they are all literates. The modal educational attainment is university degree attracting in Lugbe (69.49%); Karu (42.86%) and Kubwa (70.73%).

Occupation: Residents belong to any of the 17 occupational grouping based on ICS classifications series 3. The modal occupation group in Lugbe is Transport and storage (18.64%0 while the modal group in Karu and Kubwa is Public Administration attracting 39.93% and 56.76% respectively.

Income: The income of the respondents varies with the estates. The modal income group for Lugbe is N10,000-N49,999 per month while that of Karu and Kubwa is the income bracket N50,000-N100,000 per month which attracted 33.33% and 36.84% respectively.

Marital Status: The respondents are mostly married and the figure ranges from 87.80% for Kubwa to 90.46% for Karu. The figure for Lugbe is 84.75%.

Car Ownership and mode of transport: Car ownership in these estates is very high on average nearly 7 out of 10 owned a car (Lugbe 62.71%, Karu 76.19% and Kubwa 66.67%). Correspondingly 1 out of 2 use car to work (Lugbe55.5%; Karu 53.85% and Kubwa 56.41%). The use of public transport ranges from 3 out of 10 for Lugbe (30.51%) to nearly 2 out of 5 in Karu (38.46) and Kubwa (38.46%).

3.2 Housing types, tenure, household population and finance:

(a) House Tenure:

Home ownership in the three estates is still very low with Lugbe recording 6.8% for owner occupier contrasting with high figures for Karu (83%) and Kubwa (80.5%). Although Lugbe is developed for home owners, the majority of the people living here (89.8%) have rented their houses from their owners.

(b) House types:

The most common house type in Lugbe and Kubwa is the detached bungalow of either 2 or 3 bedrooms attracting (80%) and 26.3% respectively. In Karu and Houses are more varied. Both have a high proportion of single room houses ranging between 19.05% for Karu to 21.05% in Kubwa (Table 1).

Table 1: House types (%)

House Type	LUGBE	KARU	KUBWA
Detached Bungalow	79.66	16.67	26.32
Semi Detached Bungalow	8.47	28.57	23.68
Detached Duplex	1.69	4.76	7.89
Terraces	-	7.14	15.79
Single Room	1.69	19.05	21.05
Others	5.08	19.05	5.26
N/R	3.39	4.76	-
Total	100.00	100.00	100.00

Source: Field Survey by Author September 2007

(c) Housing finance:

Residents use several sources of finance to acquire or rent their houses. Finance by mortgage attracted 63% in Kubwa and 35.71% in Karu with 15 percent in Lugbe. This is due to high renters living in the Estate who perhaps did not know the source of the housing finance and this accounted for the non-response rate of 69% recorded for Lugbe to this question. It shows that the use of mortgage financing is picking up. Self financing is the second predominant practice (Kubwa, 26.32%; Lugbe, 22.03%; Karu 16.67%). The other two sources of housing finance are through bank loan and employer's loan. The latter attracts on average 5 out 100. However, there is a high figure of 4 out of 10 (38.10%) that used Bank loan for housing financing in Karu, when compared to 3.39% for Lugbe and 7.89% for Kubwa.

(d) Property Values:

Property values vary from N1m to N5m in these estates. The value of properties varies from N2m for Karu (42.66%) and N4m for Kubwa (55.00%).

(e) Household Population:

House population varies from 2 to 15 persons per household. In one instance household population was estimated to be between 20 people and above per household. The most common is between 3 and 10 people per house hold (Table 2).

Table 2: Household Population (%).

Household Population	Lugbe	Karu	Kubwa
1 person	-	-	-
2 persons	3,39	-	7,50
3-4 persons	45,76	11,90	30,00
5-6 persons	35,59	42,86	42,50
7-10 persons	10,17	38,10	15,00
11-15 persons	-	4,76	2,50
16-20 persons	-	2,38	-
20 and above	1,69	-	2,50
N/R	3,39	-	-
Total	100,00	100,00	100,00

Source: Field Survey by Author September 2007

3.3 Assessment of Housing elements and facilities

(a) Likeness and preferences for the design of Houses:

More residents said they disliked their building design than liked in all the three estates. The response rates for dislike vary from 55.9% for Lugbe to 67% for Karu, while the figure for Kubwa is almost 61.5%. Those who said they would prefer another design vary from 76% for both Lugbe and Karu to 89 % for Kubwa (Tables 3 and 4).

Table 3: Percent Likeness of the House Design

Likeness of the design	LUGBE	KARU	KUBWA
Yes	40.68	28.57	28.57
No	55.93	66.67	61.54
No response	3.39	4.78	0
Total	100.00	100.00	100.00

Source: Field Survey by Author September 2007

Table 4: Percent Preference for another Design

Preference for other design	LUGBE	KARU	KUBWA
Yes	76.27	76.19	89.74
No	22.03	23.81	10.26
No response	1.69	0.0	0.0
Total	100.00	100.00	100.00

Source: Field Survey by Author September 2007

(b) Involvement of End-Users in the Design

Nearly all the residents claimed that they were not involved in the planning and design of their houses attracting 100% in Kubwa, 95.24% in Karu and 89.6% in Lugbe (Table 5). This confirms the assertion that mass housing

programmes were undertaken without involvement of end users. The question that could be asked is can clients in charge of this project could actually represent the interest of he beneficiaries as should be expected? The degree of satisfaction with the design which is equally very low shows that the interest of the beneficiaries were not adequately taken care off in the planning and house design of these estates.

Reacting to their alienation, it is interesting to note that a high percentage of the residents of these estates amounting to 88% in Lugbe, 81% in Kubwa and 93 in Karu expressed an overwhelming willingness to participate in the design of their houses (Table 6).

Table 5: Percent Involvement in the Design of the House

Whether involved in the design of the house	LUGBE	KARU	KUBWA
Yes	6.78	4.76	0.00
No	89.63	95.24	100.0
No response	3.39	0	0.0
Total	100.0	100.0	100.0

Source: Field Survey by the Author September 2007.

Table 6: Percent Willingness to be involved in Housing Design

Willingness to be involved in housing design	LUGBE	KARU	KUBWA
Yes	88.14	92.86	81.08
No	6.78	0.0	18.92
Non response	5.08	7.14	0.0
Total	100.0	100.0	100.0

Source: Field Survey by the Author September 2007.

(c) Availability and Satisfaction with Facilities in the House and Estates

The residents of the estates were asked to asses the available facilities in their houses and estates. The responses to these questions were more revealing. The analyses of these are contained in Tables 7 and 8.

With regard to assessments of the designs of the various elements of houses, the facilities that attracted low ratings include gardens and recreation grounds, car parks, water supply (both piped water and boreholes), tarred roads and security. With regard to the design of individual houses, residents were not satisfied with the designs of plot sizes, car parks, gardens, burglar proof, fencing, room arrangements, maintenance, landscaping of surrounding spaces, water supply and electricity.

Table 7: Resident's rating of Available facilities in Houses in (%)

Available facilities	LUGBE	KARU	KUBWA
Gardens	1.69	4.76	13.16
Car parks	8.47	45.24	41.03
Piped water	5.06	88.10	66.67
Electricity	83.05	95.24	85.71
Boreholes	11.86	71.43	5.41
Standby Generator	33.90	4.76	16.67
Tarred road	22.03	57.14	21.66
Primary school	76.27	66.67	67.50
Shops	84.75	47.62	70.27
Clinic/Pharmacy	76.27	47.62	66.67
Church/Mosque	79.66	59.52	80.49
Recreation ground	35.59	14.29	16.42
Police post	55.93	66.67	66.67
Security Guard	22.03	16.67	16.22

Source: Field Survey by Author September 2007

Table 8: Satisfaction with House design Elements

Home Design Elements	LUGBE	KARU	KUBWA
Gardens	5.08	3.70	7.87
Car parks	8.47	44.83	27.03
Size of bedrooms	59.32	59.46	47.37
Size of housing plot	66.10	51.43	44.74
Size of living room	62.71	60.53	53.85
Size of kitchen	54.24	48.57	60.53
Size of toilet	61.02	56.76	72.07
Burglar proof	42.37	46.67	36.64
Fencing	42.37	44.44	19.44
Room arrangement	44.07	39.29	45.95
Colour of painting	50.85	45.16	40.54
Surfacing of open spaces	25.42	25.00	24.32
Building maintenance	11.86	24.24	25.00
Enclosing walls/fence	13.56	25.00	20.00
Standby Generator	30.51	7.69	18.42
Waste disposal	71.19	18.75	28.21
Septic tank	52.54	19.35	35.00
Water supply	10.17	57.14	60.0
Electricity	16.95	51.52	52.50
Air conditioning	13.56	12.90	25.64

Source: Field Survey by Author September 2007.

(d) Overall Assessment of the Design of Houses and Estates:

More people expressed dislikes for the design of their buildings in all the three towns attracting 56% in Lugbe; 67% in Karu and 62% in Kubwa. Those who said they will prefer another design ranges from 76% for both Lugbe and Karu to a whooping figure of 89% in Kubwa. Almost 7 out of every 10 people in Lugbe (69.5%) and 1 out of 2 in Kubwa (50%) said the design of their houses is just fair, while only 1 out of 2 in Karu (47.5%) said that the designs of their houses are good. With regard to the overall planning and design of the housing estates, 3 out of 5 in Lugbe (61.0%) said that the planning and design of their estate is fair; whereas 53.7% in Karu and 47.50% in Kubwa rated their estates as of good design Tables 9 and 10).

Table 9: Residents' Rating of Overall Design of their Houses

Rating of Housing design	LUGBE	KARU	KUBWA
Excellent	0	2.50	0
Very good	0	10.00	2.50
Good	11.86	47.50	35.00
Fair	69.49	27.50	50.00
Poor	5.08	0	0
No Response	5.08		
Total	100.00	100.00	100.00

Source: Field Survey by Author September 2007

Table 10: Overall Rating of the Design of the Housing Estates

Rating of estate design	LUGBE	KARU	KUBWA
Excellent	0	2.44	0
Very good	1.69	7.32	5.00
Good	6.78	53.66	47.50
Fair	61.02	28.83	40.00
Poor	27.12	9.76	7.50
No Response	3.39	0.0	0.0
Total	100.00	100.00	100.00

Source: Field Survey by Author September 2007

4. DISCUSSION OF FINDINGS:

There are many house design problems inherent in the 'top down approach' to land use planning and building designs in mass housing programmes in Nigeria as this study has shown. The following conclusions can be deduced from the above analyses:

(i) Government agencies were the clients for these projects, who actually not end-users. That explains their inability to reflect al the requirements of the end-users.

(ii) Little or no involvement of the end-users in the design of their homes and this has accounted for the high dislike for the designs and planning of their houses and estates.

(iii) Expressions of dislikes for poor arrangement and size of bedrooms and toilets, size of plots and landscape of spaces and non-availability of gardens and recreation ground call for re-examining

the design standards and land use planning and design standards adopted for these housing in the country.

(iv) The estates were poorly developed with the required infrastructure such as provision for water, gardens, electricity and security.

(v) Design not taking into consideration maintenance as residents also expressed dislike for poor maintenance of their estates.

(vi) Mismatch between household population and the number of rooms provided. No doubt there are incidences of over crowding in these estates.

Most of the design problems are likely to arise from a number of reasons, which include the following:

- Lack of uniformity and acceptable minimum standard for rooms and building plots.
- Poor and shoddy building construction as manifested in the following building members such as roofs, walls, windows, fittings (like baths, w/cs), floors and painting.
- Inappropriate use of materials.
- Lack of consideration for landscaping in planning, design and development of gardens.
- Lack of consideration for infrastructure such as roads, drainage, solid and liquid waste management.
- Non-participatory approaches to housing design
- Poor maintenance.
- Lack of development of open spaces around buildings as gardens
- Unduly high fencing of housing in estates looking like prison walls.

There is the need to take both planning and designing of houses and their constituents estates serious to avoid creating slums. It has been argued that the architectural and engineering design factors of housing play a great role in the formation of slums. These inadequacies cover errors in the planning and design of cities, of their street systems and public utilities, of residences and their internal equipment, of transit and transportation facilities and of municipal sanitation. The buildings in slum areas lacked adequate planning and infrastructural provisions. Inadequate consideration for space standards has yielded housing that is overcrowded, which has several effects including lack of privacy and exposure to several communicable diseases.

5. THE WAY FORWARD:

The design of a house is a function of cost, and mostly often when the clients are involved in the design of the house, a more realistic housing cost can be obtained. Thus the involvement of the home owners is a sure way of coming up with a realistic and feasible building design through trade-offs.

Organizing City consultation on Designs and planning: The conventional approach to building design is recommended for Nigeria. This process is still relevant and applicable to Nigeria. For ensuring effective participation of end users in building design and estate planning, the conventional design process needs to be expanded to incorporate the holding of city consultations on land use planning and building design. Two-stage consultation process should be conducted for end users. The first consultation should be held at programme stage that the designer will be willing to produce the first sketches of design solution based on the project brief. The second should be organized as a large consultation. This consultation should be organized to articulate and agree on issues that border on housing design.

One of the best practices brought into the country's urban management by UN-HABITAT is the participatory approach of the sustainable cities programme (SCP). Many fruitful City consultations have been organized in several cities including, Ibadan, Kano, Enugu, Minna and Karu. At present the UN-HABITAT has been able to produce effective guidelines and train a

critical mass of professionals who could be used to facilitate fruitful city consultations for this purpose.

This design process model, as shown Figure 1 above, is the conventional land use planning and architectural practice, which is based on and indeed starts from an effective consultations and involvement of clients and end-users to arrive at functional, aesthetically pleasing and affordable houses.

Both planners should explore all the possible avenues of involving the clients and end users in land use planning and architectural designs. These methods involve organizing town hall meetings to discuss project proposals and architectural designs and to ensure that end-users contribute to decision making. In this way the problem of alienation will be resolved. Since the client may not necessarily be the end users as this case study has shown, all building design should be complemented with community or city consultations to allow end-user to air the views on these designs since the design is for the consumption of the general public.

Funding of Infrastructures in housing estates and ensuring proper development: There is the need to ensure adequate funding of the development of infrastructure in housing estates, without which buildings might soon be turned into slums. Planning authorities must ensure that infrastructural provisions precede building activities as a way of restoring dignity.

Adopting of a robust land use planning and design space standards: The spaces standards adopted for buildings vary with each building and estate studied. There is no uniformity. The worst abused space standards are those for toilets and bedrooms. Coupled with this is the absence of no nationally adopted space standards for building and land use. These issues need to be addressed by putting in place a robust land use and space standards.

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